NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

THE CAREER COST: DOES IT PAY FOR A MILITARY PILOT TO LEAVE THE SERVICE FOR THE AIRLINES?

by

Jeffrey A. Hodges

June 2015

Thesis Advisor: Thomas Albright
Second Reader: Amilcar Menichini

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704–0188

1. AGENCY USE ONLY *(Leave blank)*	**2. REPORT DATE** June 2015	**3. REPORT TYPE AND DATES COVERED** Master's Thesis

4. TITLE AND SUBTITLE
THE CAREER COST: DOES IT PAY FOR A MILITARY PILOT TO LEAVE THE SERVICE FOR THE AIRLINES?

5. FUNDING NUMBERS

6. AUTHOR(S) Jeffrey A. Hodges.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Naval Postgraduate School
Monterey, CA 93943-5000

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)
N/A

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number ____N/A____.

12a. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (maximum 200 words)

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This thesis compares two scenarios: one in which a military pilot leaves the service to become a commercial airline pilot upon completing the initial active duty service obligation (ADSO), and one in which a military pilot defers becoming a commercial airline pilot until after reaching military retirement eligibility. The comparison is made by calculating lifetime income cash flows of both scenarios, and then discounting them to achieve a net present value (NPV).

The findings conclude it is financially prudent for military pilots to remain in the service until retirement. The current policies enable a retired military pilot to earn over 9% more in NPV when compared to the military pilot who separates at ADSO completion. Military pilots who voluntarily separate prior to retirement for financial reasons are incorrectly evaluating the assumed pay disparity between the airlines and the military.

14. SUBJECT TERMS: Pilot, airline pay, attrition, earnings, career			**15. NUMBER OF PAGES** 59
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	**18. SECURITY CLASSIFICATION OF THIS PAGE** Unclassified	**19. SECURITY CLASSIFICATION OF ABSTRACT** Unclassified	**20. LIMITATION OF ABSTRACT** UU

NSN 7540–01-280-5500

Standard Form 298 (Rev. 2–89)
Prescribed by ANSI Std. 239–18

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THE CAREER COST: DOES IT PAY FOR A MILITARY PILOT TO LEAVE THE SERVICE FOR THE AIRLINES?

Jeffrey A. Hodges
Lieutenant Commander, U.S. Navy
B.S., Berry College, 1998

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

NAVAL POSTGRADUATE SCHOOL
June 2015

Author: Jeffrey A. Hodges

Approved by: Thomas Albright
Thesis Advisor

Amilcar Menichini
Second Reader

William Gates
Dean, Graduate School of Business and Public Policy

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LIST OF ACRONYMS AND ABBREVIATIONS

ACCP	Aviation Career Continuation Pay or “Bonus”
ADSO	Active Duty Service Obligation
ACIP	Aviation Career Incentive Pay or “Flight Pay”
BAH	Basic Allowance for Housing
BAS	Basic Allowance for Subsistence
NPV	Net Present Value
OCS	Officer Candidate School
RAND	RAND Corporation (Research and Development)
ROTC	Reserve Officer Training Corps
TMC	Total Military Compensation
USERRA	Uniformed Services Employment and Reemployment Rights Act
USA	United States Army
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
YOS	Years of Service

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ACKNOWLEDGMENTS

I wish to thank Dr. Thomas Albright and Dr. Amilcar Menichini for their valuable contributions and guidance. Additionally, I also thank the many military and airline pilots who, over my career, provided inspiration and insight for a thorough financial analysis on this subject.

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I. INTRODUCTION

A RAND study, by sponsorship from the U.S. Secretary of Defense, reached the conclusion that increases in major airline pilot hiring have significant impacts on retention rates of military pilots (Elliot, Kapur, & Gresenz, 2004). Their data showed as airline hiring increases, military pilot retention rates drop as qualified personnel leave the service for careers as commercial airline pilots. As the need for commercial pilots increases, the Department of Defense's ability to maintain its desired pilot quota levels will become very difficult. Major airlines prefer hiring pilots who have the experience that comes with thousands of flight hours in high-performance, fixed-wing aircraft. The military services offer an excellent source from which to draw. Airline industry experts are forecasting a significant increase in new hires over the next decade, which will likely aggravate the military's retention problem. With the estimated cost of training one fighter pilot in the United States Air Force (USAF) at over $6 million (Hennigan, 2013), the military has a lot at stake. RAND estimates that, without changes to current policies, the USAF will have a 1,000 pilot shortfall by 2022, and the United States Navy (USN) will have already experienced a 10% shortage (McGee, 2010).

The military is able to increase its pilot retention rate by increasing compensation offered (Elliot et al., 2004). If increasing military pay increases retention, then significant decreases in retention can be attributed to perceived pay disparity between the airlines and military. The promise of high paying jobs and excellent benefits are very enticing to military pilots looking to improve their financial situations. A professor at the USAF academy concluded that the biggest reasons for pilot attrition are the economic factors of pay differences between the USAF and airlines, economic strength, and airline hiring (Fullerton, 2003). As illustrated in Figure 1, the USAF has seen a significant retention rate decrease since 2010.

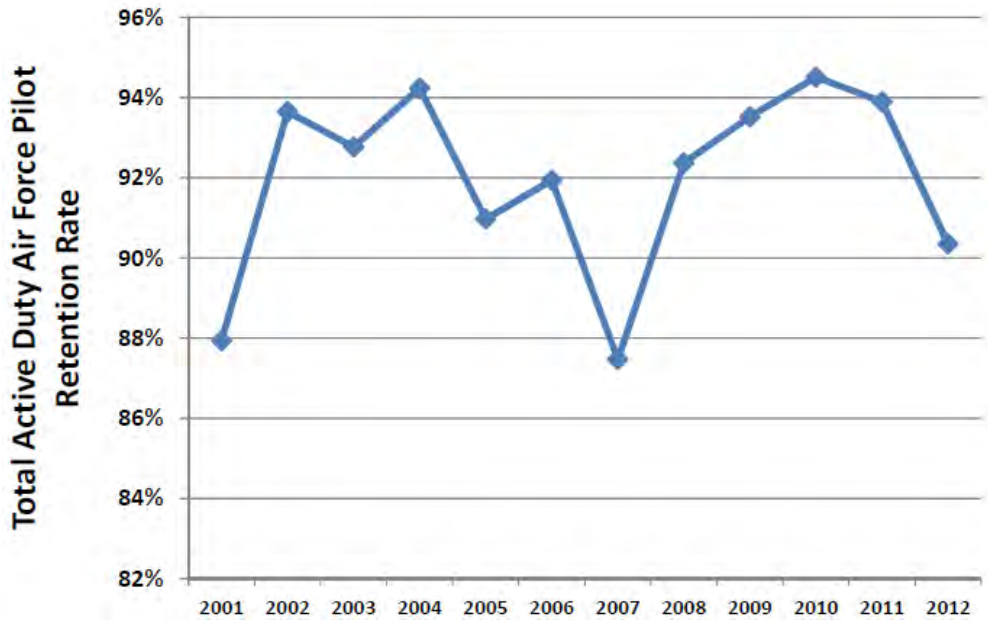

Figure 1. Annual active duty Air Force pilot retention rates, 2001–2012 (from Sweeney, 2015).

The compensation profile for pilots between the military and airlines contrasts sharply, and many military personnel believe that pay from a major airline largely exceeds their financial situations. A simple glance at the average captain pay of a major airline is a convincing motivator to start a career with the airlines. Captains of large aircraft with a major airline can make over $200,000 annually, with the potential for more given seniority and airline profitability. When O-3s in the service compare that amount to their current salaries, the military cannot compete financially. Of course, compensation alone does not address the quality of life and other intrinsic motivators that might weigh in a military pilot's decision to leave the service. If one assumes that financial compensation does play a significant part, then it is logical to have a quantifiable financial comparison between the two tracks. Should they leave the service at the first opportunity, or wait until retirement before going to the airlines? The decrease in retention rates suggest they are leaving prior to retirement, though, in reality, it is not the most financially advantageous decision. The choice of a military pilot to separate from the service results in a decreased individual lifetime earnings, and increased cost to the services by millions of dollars, as they are required to train a greater number of pilots.

A. METHODOLOGY

By performing a rigorous financial comparison, the military member is more adequately informed of the true financial value they might receive in a lifetime. This is a much more rational approach than simply looking at senior captain pay at a major airline and making a quick salary comparison.

This thesis explores the career earnings of a commercial airline pilot who was trained and served in the military. The comparison includes two scenarios:

1. A military pilot who leaves the services to become a commercial airline pilot upon completing ADSO. For simplicity, this thesis refers to this person as the "veteran."
2. A military pilot who becomes a commercial airline pilot after completing 20 years of military service, the time required to reach military retirement eligibility. For simplicity, this thesis refers to this person as the "retiree."

The RAND study also found the large majority of military pilot attrition occurred within a year of completing their active duty service obligation (ADSO) (Elliot et al., 2004). Much of this is due to the job market available to pilots after ADSO completion and the cliff vesting nature of military retirement. As the economic conditions and outlook continue to improve across the country, and specifically in the airline industry, there is likely to be a large increase in demand for the highly trained pilots in the military.

The previous decade has had a favorable environment for military pilot retention. Airline pilot hiring was historically low as the economy experienced a recession. In 2009, there were only 30 new hires across the major airlines, compared with over 3,000 new hires in 2014. Compared to the 1990s, the industry averaged four to five thousand new hires each year ("Major Airline Hiring by Year," n.d.). Airplane manufacturer Boeing has estimated that the need for new commercial airline pilots will increase to 498,000 globally by the year 2032 (Durrani, 2014). Airline industry analysts are forecasting a shortage of pilots needed in commercial aviation. This trend should not only result in an increase in the number of pilots hired, but also in the pay that commercial pilots receive. This environment will likely make it harder for the services to retain highly trained pilots as they are lured by the potential financial compensation of a major airline. As shown in

Figure 2, the services will continue to see a significant spike in attrition rates as major airline hiring increases.

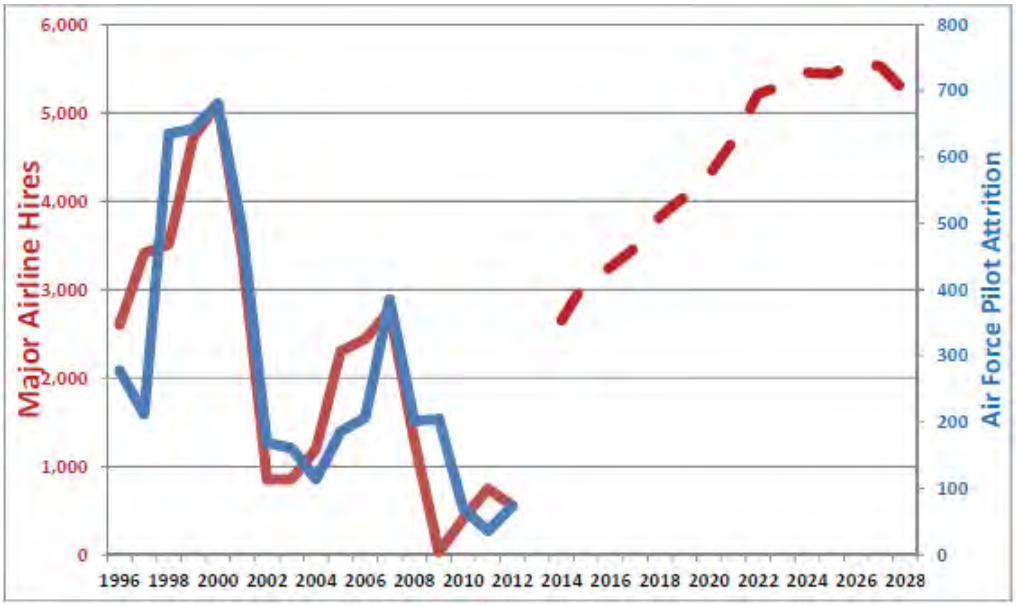

Figure 2. Major airline pilot hiring versus Air Force pilot attrition, with future estimated major airline pilot hiring (shown by the dashed red line) (from Sweeney, 2015).

The military services spend large amounts of money on pilot flight training. It can take as much as two years before student pilots are awarded their "wings" and become officially rated. This training is only the foundation for the sophisticated skill set that will be required to fly some of the most advanced aircraft in the world. The training requires a large commitment from both the pilot and the service, with pilots having one of the longest service obligations of any specialty in the military. The increased commitment time for pilots puts them that much closer to retirement eligibility. Currently, the USAF requires pilots to serve a minimum military obligation of ten years after receiving their wings; the Navy and United States Marine Corps (USMC) both require eight years for fixed-wing pilots (Powers, 2006). The Army also has fixed-wing pilots, but they are a relatively small percentage of their respective service and of the total military pilots with fixed-wing experience. Helicopter pilots from the services must find ways to gain more fixed-wing experience to be competitive for applications with the major airlines. This

will generally result in spending more time with smaller regional airlines that pay significantly less. Once they reach an adequate experience level, they could then be competitive with major airline applicants; however, this could take an additional couple of years and beyond the scope of this thesis. Table 1 explains how the USAF will experience the lion share of retention challenges as they have the highest number of fixed-wing pilots, which is over 94% of their total.

Table 1. Pilots—military FY13 (after McGee, 2015).

Service	Total Pilots	Fixed-Wing Pilots
USAF	14,015	13,279
USN	7,354	4,052
USMC	4,127	1,798
USA	10,195	1,044

While the other services do not have similar percentages, they will still be burdened with retention challenges of all pilots, not just those that are fixed-wing trained. The vast majority of military fixed-wing pilots meet the preferred application criteria of a major airline, but other pilots could become competitive for airline hiring by acquiring some more fixed-wing flight time, in or out of the service. All USAF, USN, and USMC start flight school and gain experience flying an airplane. The Army, and to a lesser extent, Navy and Marine Corps, rely heavily on helicopter pilots that may not meet the preferred application criteria of major airlines as flight time in helicopters is not equally comparable to flying a large airplane. Helicopter pilots can still obtain employment flying with smaller, regional airlines and then use that experience to build preferred fixed-wing time desired by the major airlines. The time spent with a smaller airline is significantly less in salary, but it could be for a very short time relative to an entire career of professional pilot earnings and worth the temporary setback. Thus, increases in major airline hiring not only impact fixed-wing pilot attrition rates, but to some degrees, all pilot attrition rates across all military services.

The military pilot has a very significant life decision to make at ADSO completion. They are already half-way to retirement eligibility. Many of these pilots have

experienced several relocations, multiple deployments, and family and personal changes, including marriage and children. Military pilots have limited input in their duty stations, deployment lengths and frequency, and always have the potential of fighting in national conflicts and wars. Airline pilots experience very different circumstances and dilemmas. They have to manage where they want to live and with which airline they wish to work. Unlike most industries, airline pilots are unable to change employers and maintain similar pay, schedules, and benefits due to the hierarchal nature of airline pilot seniority. All of these items have a significant impact on their quality of life. These choices can determine earnings, expenses, schedule, and domicile. However, the focus of this thesis is not to determine the qualitative factors that differ in the life of a military officer and airline pilot. While quality of life is significant in terms of career choices, every individual will value them differently. With an accurate financial comparison, quality of life choices can be made.

B. ASSUMPTIONS

Several assumptions are required for comparison purposes; the first of which is age. The majority of students starting flight school are recent college graduates from service academies, ROTC programs, or OCS. Almost all are under the age of 25, with all services having restrictions and age maximums for flight school. This demographic is largely a result from military service academies that do not allow students to be married, have any dependents, and require ages between 17 to 23 years old (Flynn, 2014). For this reason, the first age assumption is 22 to start flight school, as most flight candidates come directly from college graduation. For simplification, I assume this person completes 10 years of military service for ADSO, including flight school. Flight school takes a minimum of one year, and could take over two years to complete, depending on aircraft selection. Upon completion of flight school, the student becomes a certified pilot and also incurs his or her service's respective commitment. This commitment time is added to flight school to get approximately 10 years of service. Not until ADSO commitment completion will that person have the option of separating from active duty. Navy and Marine Corps pilots with fixed-wing experience could average slightly less than 10 years, while USAF pilots will likely exceed this number by a year. Thus, if they start flight

school at age 22, and add 10 years of service, then the age of 32 would be the average decision age for the two scenarios, whether it is start an airline career, or continue until military retirement. For simplification, the retiree is deemed to have promoted to O-4 at ten years of service, and O-5 at 16 years of service. Both the veteran and retiree will be assumed to upgrade to commercial airline captain after a 10-year career with an average major airline. Rationale for these assumptions is addressed in Chapter IV.

The last age assumption is life expectancy. This age is significant because of airline pilot requirements and military retirement. This thesis uses the average life expectancy for the United States of 82 years old. This is based on the average life expectancy of males in the United States that are 32 years old in 2015 ("Life Expectancy Calculator," n.d.). The female average age is less conservative as it is higher. Many arguments could be made for a lower life expectancy (due to work, stress, and other military factors) or a higher life expectancy (due to higher incomes that lead to better health, quality of life, etc.). The total compensation comparison numbers could vary greatly if someone lived longer or died sooner than this age. The age that requires no assumption is 65, which is the mandated age in which commercial pilots must retire, mandated by Congress in 2007 (McGee, 2014). This thesis scenario does not account for gaining other employment or non-military retirement income beyond age 65.

We must also assume that the military-trained aviator becomes employed by a major airline immediately upon completion of ADSO or retirement eligibility, as appropriate. For pay purposes, the comparison begins at completion of 10 years for the service members and that same time frame for those who transition to the airlines.

The definition of a major airline is somewhat ambiguous, and there can be a disparity in the form of financial compensation from what are considered to be major airlines and lager regional airlines. Major airlines have revenues in excess of $1 billion for 2014 ("Air Carrier Groupings," 2013), and have significantly better compensation profiles when compared to the smaller regional airlines. Major airlines include the following passenger airlines and two major freight carriers from which data is obtained to determine average airline pilot compensation: Alaska, American, Delta Airlines, FedEx, Frontier, Hawaiian, JetBlue, Southwest, Spirit, United, UPS, and Virgin America.

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II. MILITARY COMPENSATION

All of the financial benefits that are received from service in the military are grouped into a term referred to as total military compensation (TMC). This is made up of pay and allowances, bonuses, tax savings, and other financial benefits.

A. PAY AND ALLOWNCES

Pay and allowances comprise the regular salary that military pilots earn. The main difference between the two is "pay" is taxed at the federal and state (if applicable) levels, whereas "allowances" are not. Allowances are not taxed as they are deemed reimbursable expenses for a benefit that may not be provided for, such as housing. Military members are taxed at the state level from their permanent state residence and not the state they reside or currently stationed. Many military members become residents of states that do not have income tax, thus, they avoid state income tax completely.

1. Base Pay

There are two types of pay that virtually all military pilots receive, the first being base pay. Base pay makes up the majority of military officer pay and is widely accepted as the benchmark for how much a military pilot earns per month. However, if the member resides in a location like Hawaii, base pay could account for less than 50% of TMC. Base pay will likely increase with inflation (or better) as Congress and Department of Defense officials bargain over what is appropriate to pay service members. Many people fail to realize that base pay is not the only compensation military members receive. It is only a portion of the TMC, and should not be construed as the largest percentage or insignificant. While pay charts encompasses all ranks and time in service, this particular comparison only requires focus on two pay grades, O-4, and O-5 with years of service from 10 to 20.

The first pay grade for comparison in this thesis is O-4. The analysis begins with completion of 10 years in the military, which should be approximately the time the member has been promoted to the rank of O-4. While individual results will vary by a

few months, the large majority of officers would meet these criteria. Failure of promotion to O-4 (after second review) results in automatic military separation, thus, that person would not have the decision to stay until retirement eligibility. The second pay grade is that of O-5, which is assumed to have happened at 16 years of service (YOS). Once again, the timing could vary slightly as officers are eligible between 15–17 years of service. Promotion rates to O-5 routinely exceed 70% across the services and are a reasonable assumption for comparison purposes (Powers, n.d). Those who fail to select to O-5 could still be become retirement eligible, but will experience significant pay reduction impacts throughout retirement, to include the remaining four YOS left until retirement. For simplification, Table 2 shows the 2015 base dollar amounts of pay that the retiree will receive in the future. These dollar amounts are increased yearly with inflation for the future cash flows. Data not pertinent to this analysis was removed.

Table 2. 2015 Sample military base pay chart (after DFAS, 2015).

	Paygrade	
Military Years of Service	**O-4**	**O-5**
Over 10	6,659.10	-
Over 12	6,990.60	-
Over 14	7,221.00	-
Over 16	-	8,053.80
Over 18	-	8,281.20

2. Flight Pay

The second type of pay is known as Aviation Career Incentive Pay (ACIP), or flight pay. Flight pay is a financial incentive for officers to serve as military aviators throughout a military career. Payment ranges from $125 to $840 per month, determined by years of aviation service as an officer (DFAS, 2015). It starts upon reporting to the student pilot's first training squadron and last until retirement, assuming certain criteria are met. This criterion includes number of years spent in flying billets compared to total

number of years in service. Generally, all aviators in the service are able to retain flight pay through retirement.

The most interesting fact about ACIP is that the last time amounts were adjusted was 1997 (DFAS, 2015). Unlike the other types of TMC, flight pay will only be adjusted on an as-needed basis and not with inflation rates. There is no evidence to suggest when the numbers could be adjusted, or in which direction that might be if they were. Since flight pay has not changed in so long, these numbers are not adjusted for inflation in our comparison. For the comparison, we assume that the military pilot will meet the gate requirements and continue to receive ACIP until retirement. One interesting fact about ACIP is the decrease after 24 years of flight status. While this is understandable, as the service member is likely not serving in a job that requires daily flight operations, it is a small pay cut that occurs to someone who is retirement eligible, and an extra incentive to retire. Table 3 shows the 2015 monthly flight pay dollar amounts. The retiree will receive these amounts in the appropriate year in the future, based on years of service. These values are ***not*** adjusted for inflation in future cash flows.

Table 3. 2015 Sample flight pay rates (after DFAS, 2015).

Years of flying service	Amount
Over 6	$650.00
Over 14	$840.00

3. Basic Allowance for Housing

Basic allowance for housing (BAH) is given to all military members to offset their cost of housing if it is not provided for by the military. The BAH amount is based on rank and dependent status, and the location of where the member is stationed. Members living in high cost-of-living locations with a higher rank could have a significantly larger BAH and thus TMC, than those of junior rank in low-cost areas. Each rank has two rates, based on status as single, or with dependent(s). This thesis will only use the member with dependent(s) rate for comparison.

For the analysis, taking an average of all BAH locales would likely show an inaccurate picture of pilot compensation ("Regular Military Compensation Calculator," n.d.).[1] One of the largest obstacles for pilots separating from the service and getting an airline job is pilot currency. The airlines prefer experienced pilots that are also currently serving in active flying jobs. Since the average of BAH locales would include so many data points from BAH places that have no flying opportunities, that average is not used.

To more accurately compare a military pilot's income with their airline counterpart, BAH data was captured from the major installations that the Navy and USAF pilots would normally be stationed serving in a flying status. The average was taken from 60 installations from the United States. The rational is a pilot is not likely to live overseas and fly for an American airline, thus overseas BAH rates would be irrelevant for comparison. Also, most airline pilots prefer to live close to hub airports in larger cities that make travel to and from assigned domiciles much simpler. Adding all of the thousands of possible BAH locales only skews the real comparison numbers of BAH value. A military pilot considering separation that is currently stationed at one of the flying bases and looking to live in their current locale, this would be the most accurate way to compare their current salary to one of their airline pilot counterparts. Using only the majority of the logical flying locations for the USAF, Navy, and Marine Corps actually produces a lower sample average BAH value than the computed average across all U.S. locations. The sample BAH average is used in data comparison. The sample BAH average resulted in BAH monthly contributions averaging over $200 less, or about 8–12% lower than what the U.S. national averages would have given. Table 4 illustrates the computed sample BAH monthly allowance based on pay grade. These dollar amounts are increased yearly with inflation for the future cash flows.

[1] Average BAH rates according to USD Military compensation calculator for U.S. average are $2,093 and $2,334 per month for pay grades O-4 and O-5. This compares with the calculated sample BAH rates of $1,920 and $2,063.

Table 4. 2015 Sample average BAH Rates with dependents.

Pay Grade	Amount
O-4	$1920.20
O-5	$2063.65

One additional note to consider regarding BAH would be high cost of living locations, like Hawaii, would increase TMC for those in that area when compared to the airline pilot who does not have the same cost of living adjustments. While this comparison is likely to be made and would skew the results in favor the military personnel, a service member is subject to relocation orders and not likely to be able to homestead in a single location for multiple consecutive orders. Also, any extra compensation received in BAH is usually short lived and lost upon retirement.

4. Basic Allowance for Subsistence

Allowances are the other entitlement given to military members. The smaller of the two is Basic Allowance for Subsistence (BAS). It is an established number for all officers, regardless of rank, to offset the cost of meals. It is $253.38 for 2015 (DFAS, 2015), and adjustments are reviewed annually based on the price of food index from the Department of Agriculture. Table 5 illustrates the 2015 BAS monthly rate for all officers. These dollar amounts are increased yearly with inflation for the future cash flows.

Table 5. 2015 BAS rates (after DFAS, 2015).

All Officer Pay Grades	$253.38

B. BONUSES

The final pay benefit for military service is bonuses. The Navy currently offers two separate bonuses that could be available to military pilots during their tenure, and the USAF offers one. The current Navy bonus offers up to $125,000, paid over equal installments upon selection for a department head billet known as the Aviator Career Continuation Pay (ACCP) (NPC, 2015). This bonus requires Navy pilots to remain an

additional five years after ADSO is completed and select for a department head billet. The Marine Corps offers a similar bonus. The USAF offers a similar bonus of $125,000 to their pilots upon completion of ADSO, but they also offer an option of up to $225,000 for a nine-year commitment to certain qualified fighter pilots (Everstine, 2015). The Navy is also offering a Command bonus of two payments of $15,000 for those selected for command of aviation squadrons. This bonus would occur at approximately 16 years of service (YOS); however, it requires the member to remain in the service until reaching 22 YOS, beyond retirement requirement and our comparison study.

Personnel departments review requirements and bonus amounts every year based on staffing level needs and projections. All services have previously adjusted their bonus amounts to incentivize retention of pilots that are qualified in aircraft that have high demand. The USAF, specifically, has started experiencing pilot shortages as an increasing number of experienced personnel leave the service to join the commercial airlines. Many members cite deployment schedules, lack of flying time during tours, and perceived pay inequality with their airline counterparts as reasons to turn down retention bonuses and leave the service (Sweeney, 2015).

C. TAX SAVINGS

One thing to note about TMC is that it includes BAH and BAS which are not taxed. An O-5 could easily receive over $4,000 a month of income that is not subject to federal or state taxes. If the airline pilot made the same amount, it could be taxed easily at a rate of 15% or more. Thus, in the calculations, BAH and BAS values are multiplied by 15% to include a tax savings value in TMC and recognize their true benefit. The ability of military to avoid state income tax is not included in the comparison as airline pilots could also live in a state with similar tax structure. The benefit of military retirement recognized as non-taxable income by some states is also not included in the data. Table 6 illustrates the calculated 15% of the total monthly combined sample BAH and BAS rates.

Table 6. 2015 estimated military income tax savings.

O-4 @ 10 years of service	$3912

D. RETIREMENT

One of the largest incentives for pilots to remain in the service upon ADSO completion is the retirement package available when they reach 20 years of service. The current system will pay 50% of base pay, with the base pay number computed by obtaining the average of the highest 36 months of base pay. Payments start immediately upon retirement from the service and paid out until death, and include a cost of living adjustment each year. It would also include other benefits such as reduced medical expenses and shopping privileges on military installations. The "cliff-vested" retirement program is an all-or-nothing approach that gives the veteran nothing, but pays the retiree well over a million dollars over their lifespan. The financial incentive of retirement payments is likely the largest reason for the military member to remain in service. While there have been discussions of changing or reducing the current military retirement package, no real traction has been gained and any changes would have to be approved by Congress. Any changes, however unlikely, would probably not include current military as they would be "grandfathered" in the current system.

E. OTHER BENEFITS

Other military benefits are excluded from TMC but do have some value. Active duty and retirees have access to base fitness centers, retail shopping, and grocery stores that can offer substantial cost savings. Military members can receive medical, dental, and life insurance benefits in affordable amounts compared to their peers in the airline industry, and these services are accessible to military retirees as what many consider excellent rates. However, these benefits could be considered substandard and bureaucratic by some users and they opt out of the program by choice. The same arguments could be made for certain airline employee health care programs. Since the quantifiable benefits differ from user to user there is no accurate way to compare them. For the purpose of this analysis, they are excluded.

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III. AIRLINE COMPENSATION

Commercial airline pilot pay is computed in a very different manner from that of the military. While military pilots are salary positions, airline pilots are paid on an hourly scale based on the aircraft they fly and the position of captain or first officer. This hourly scale does not directly correlate to the actual number of hours worked, time spent traveling, commuting, or even flying. An hour is simply an estimated measure of time beginning when the boarding door closes on the ground prior to taxi, and ending when it opens upon completion of the flight. It relates to flight time, but the two are rarely equal. So, while airline pilots get paid by the hour, the rates do not actually reflect the number of hours worked. Pilots who spend more time on the ground loading and unloading passengers from shorter duration flights will work a longer day than the pilot of a longer flight, such as transcontinental or overseas. Even though the pay per hour, and thus pay, of these two pilots could be similar, the number of total of hours "at work" could be substantially different. Airline pilots look for a schedule that maximizes the percent of paid hours in relation to the total number of hours "working."

A. PAY

1. Longevity

The airline hourly pay chart is known as longevity pay. The hourly pay rates are divided into captain and first officer, and based on aircraft flown. Some airlines only utilize one model of aircraft, while others use multiple types and variants. Some of the airlines offer higher hourly rates for pilots that fly larger aircraft; other airlines have one flat hourly rate across one or several models. Larger aircraft are usually reserved for pilots with more seniority, and thus more experience with the airline. These aircraft traditionally fly longer duration flights and spend less time turning over passengers, which is the portion at work a pilot is not meeting their quota of paid hours. Pilots of larger aircraft will be paid the highest hourly rates while spending less total time at work achieving their scheduled hours. Table 7 illustrates the average airline pay in 2015.

Table 7. Calculated average airline pay for 2015. (after "Airline Profiles," n.d). [2]

Year Pay	Hourly Rate ($)	Yearly Pay ($)
1	51	49,047
2	98	93,736
3	108	104,116
4	114	109,571
5	119	114,664
6	123	118,356
7	127	121,622
8	129	124,216
9	132	126,393
10	135	129,227
11	201 (captain pay)	192,613
12	203 (captain pay)	195,091

The hourly rate is multiplied by 80 hours per month to make up almost all of airline total compensation. Airline pilots receive a schedule by month including dates, times, and hours, known as a "line." Alternatively, they can be in a reserve status. In reserve status, the pilot still has a minimum guarantee pay for a set number of hours, but they are only required to work when called upon to fill in for an open seat. This could result due to another pilot being sick, and delays for crew, weather, or maintenance, and various other reasons causing schedule changes. Reserve pay is guaranteed for a set number of monthly hours depending on the airline, and the average is approximately 75 ("Airline Profiles," n.d). Line or Reserve status can be based on location, preferences, and of course, seniority. Some pilots like the set schedule of a line; others prefer the flexibility of a reserve schedule and the potential of receiving pay without having to work as much. The likelihood of this is dependent on multiple factors including airline operations and luck.

[2] Yearly pay calculated at 80 hours per month. Airlines with more than one pay scale for aircraft flown used an average for that airline. Individual airline hourly pay rates were obtained by source. For airlines with multiple hourly rates, an average was used.

Airline pilots are scheduled in a monthly matrix. Each pilot receives a guarantee of working, and getting paid, a minimum number of hours per month. Depending on the airline, pilots get scheduled for a few days at a time in which they will likely fly multiple days, known as their "trip." They usually start and finish this block period from their domicile. The trip blocks will incorporate meeting at least the airline guarantee hours, but usually average close to 80 hours per month over a year. One of the downsides of being an airline pilot is that during their trip they are very likely to spend a few nights away from their home base in hotel rooms. Even though the company will pay for the hotel rooms, most people would prefer not routinely spend multiple consecutive nights away from their own home.

Seniority is everything to an airline pilot. Not only does it control the hourly pay scale, it also controls the domicile choice (or lack of choice), aircraft type, and the total time working during the airline trip. All pilots would like to live in their domicile as they would not need to spend time traveling to another domicile in which they might be based. Seniority determines domiciles. The most senior pilots get their pick of domicile and the junior pilots get the left overs, for better or worse. Living in your domicile plays such are large part of quality of life, that many first officers defer becoming a captain because they would change domiciles. They enjoy relative seniority of being a high first officer at one domicile, vice being the low relative seniority captain at another domicile. Selection for domicile, aircraft, and schedule all are based on seniority within the company, and relative seniority at the domicile. Junior pilots are subject to whatever is left over after all of the preferred items are taken. A new pilot with a rapidly growing (or hiring) airline can move quickly from the bottom of the seniority list, but a new hire from an airline that is facing economic hardship, furloughs, or bankruptcy can spend years seeing no movement up the seniority list.

One advantage the airline pilot has over his military counterpart is the ability to earn more money, including overtime and other higher pay rates. Military pilot pay is salaried and not dependent on flight hours, or even if the pilot is in a flying job. Their pay is established and the only way to earn more money would be to receive one of the special pays, such as deployment or hardship, or living overseas. Airline pilots are paid to

fly, and under the right situation, can earn significantly more money than the monthly guarantee or the industry average month. They can volunteer to fly extra trips, and also look for changes in the flight schedule that result in premium pay. Seniority will play a large part in whether overtime or premium pay can be obtained, because just as in everything else, senior pilots get preference. Increased pay typically comes from more work, but it is an option that the airline pilot has that the military pilot does not.

2. Per Diem

Per Diem is another component of airline pay. Airlines will pay their pilots a certain rate per hour for time spent away from their domicile. This pay is to help cover the cost of meals and incidentals. This hourly rate pay is on a normal hour and does not coincide with the base pay hours. Rates vary from $2.10–2.65 an hour ("Airline Profiles," n.d.) based on the airline, and trip location of domestic or international. While this would result in an additional pay per month, earning a higher amount of per diem is likely to be associated with an increase in traveling expenses. Any potential gains from per diem are likely minimal as per diem is a reimbursement tool. Scenarios that increase per diem will increase expenses for the pilot and are not included in this analysis.

3. Union Dues

The number of hours scheduled, hours worked, days on a trip, and hours flown is regulated by government and union rules. Almost all airline pilots join the union when hired by an airline. While the unions should look out for the best interest of the pilots, sometimes what is deemed "best interest" could vary greatly from person to person. Airline pilot pay charts reveal that first year pay is substantially less than 2nd or 3rd year pay. First-year airline pilots are on probation with the company. During probation, they can be fired for any reason without recourse and without protection from the union. After the first year, the member is fully vested with the union, and the union would defend any threat of employment termination without just cause. The pilot will also pay 1% of gross pay for union dues after their probation year. While the union can serve as a valuable asset in negotiating pay, hours, benefits, etc., dues can become a substantial amount of

money for a senior airline captain and is a component of our comparison. Every major airline has a union that represents their pilots.

B. RETIREMENT

Retirement benefits are one of the more difficult items to assess as a component of total airline pilot compensation. The airline industry has gone through a series of economic booms and financial turmoil, including a long list of furloughs, bankruptcies, mergers, acquisitions and takeovers. Historically, most of the major airlines offered a pension type program that would guarantee a set dollar figure upon reaching retirement, known as an "A" fund, or defined benefit plan. The pilot could then receive that amount over time or take a reduced lump sum figure. When bankruptcies occurred, these pensions had significant value reductions or were completely eliminated. Some legal battles between the pilots, unions, and airlines are still ongoing. Many pilots that have been vested into pensions will not likely know what that amount will be until they actually reach retirement and hope their airline is financially secure at the time.

Some major airlines offer employees what is known as the "B" fund, or defined contribution plan. The B fund is the contribution towards a retirement fund that is in control of the employee. These contributions range from 12 to 16% among the major airlines ("Airline Profiles," n.d).[3] The big advantage of the B fund is ownership and control rests with the member. The only impact financial failure of the airline would have is if the B fund was used to purchase stock in the airline.

More recently, airline retirement plans have taken the example from Southwest Airlines, one of the few airlines that never declared bankruptcy. They now offer a 401K type retirement plan to include matching the contributions from the pilot. This encourages retirement savings from the employee and additional compensation from the airline upon retirement. While this concept forces the airline to pay more money up front, they no longer have the huge sums in pensions awaiting payment in the future. If anything, the current trend presents a more accurate financial picture for the industry.

[3] B fund retirement contribution ranges.

401K contributions range from 8–18% of pay to be added into total compensation ("Airline Profiles," n.d).[4] While a 401K would require contributions of the member to thus in turn match them, it does add another restriction to the total amount of money earned as it is not available until reaching retirement age. However, most pilots are likely to contribute to their retirement plan and the additional funding from the airline is a welcome incentive that can be included in total compensation.

C. OTHER BENEFITS

Several other benefits are much harder to quantify. The largest of these is profit sharing. Many of the major airlines offer profit sharing in their pilot contacts. Unfortunately, profit sharing is dependent upon the company to make money. Many of the major airlines have gone quarters and even years without paying the pilots anything because of lack of profits. The pilots experiencing large profit sharing payouts now, are the ones that faced furloughs, mergers, and bankruptcies a few years ago. Improving economic conditions could result in increased financial compensation but payouts are too inconsistent to be included in this analysis.

Airline pilots also receive other benefits such as flying privileges, free airline tickets for family, and reduced hotel room rates. They might also be paid extra if they fly to overseas locations. While these items are a nice benefit, they would vary greatly in perceived value and are not included in this analysis.

[4] 401K retirement contribution ranges.

IV. CALCULATIONS[5]

Military pay was calculated using pay tables from calendar year 2015 as the base year. Each year was projected using inflation from year 10 to 20 when retirement eligibility is met. The totals were obtained from adding base pay, flight pay, BAH, and BAS. Base pay, BAH, and BAS were increased at the rate of inflation, however, flight pay was left to the current rates as it is not adjusted for inflation annually, and has not changed since 1997. Inflation of 2.0% was used based on the long term target rate of the Federal Reserve ("Why are interest rates being kept at a low level?" 2015). A tax adjustment of 15% was also added due to the real value of non-taxable allowances that are received for comparison with an individual whose entire earnings would be taxed. 15% is a conservative estimate as military members will likely move into the 25% federal tax bracket by the end of their career, based on deductions, dependents and other tax situations. Finally, a fixed bonus structure was added for years 10 through 14 at $25,000 each, since it is available to most of the Navy, Marine Corps, and USAF pilots. These amounts are added together in a yearly breakdown show in Table 8. Table 13 in the appendix illustrates the yearly summary of TMC over the entire lifespan of the retiree.

Table 8. 2015 calculated TMC.

2015 Military Pilot Yearly Pay Breakdown	
Base Pay	79,909
Flight Pay	7,800
BAS	3,041
BAH	23,042
Tax Savings (15% on allowances)	3,912
Bonus Payment	25,000
TMC	**$142,705**

[5] All total calculations rounded to the nearest dollar

The bonus amount is conservative in the calculations and subject to change. However, indications are that it will only increase. An example of this is the new long term bonus of $225,000 to select pilots of the USAF, and other studies that recommend increasing military compensation (McGee, 2015). Also, other payout structures are possible with the military pilot receiving up to 50% of the total bonus in a lump sum, with the remainder paid out over the contract, or receiving payments prior to year 10 of service. This earlier payout would increase the advantage of the retiree

The airline pilot pay was calculated from year 2015 hour pay rates ("Airline Profiles," n.d).[6] For comparison, year 10 in the military would be year one with the airlines. Pay was averaged across 9 of the 10 major passenger airlines and two major cargo carriers.[7] Upgrade time to promote from first officer to captain is also averaged based on the latest hiring date of the most junior captain in each airline. This resulted in an upgrade time of just over 10 years in the airline ("Airline Profiles," n.d.).[8] While some airlines have quicker upgrade times, these correlate to the airlines that have lower overall pay scales for both first officers and captains. Obviously, individual results could vary based on timing of hiring, upgrade times, economic conditions, and airline solvency. Retirement contribution is calculated based on 12% of hourly pay.[9] Table 9 reflects the average total compensation for the first year of an average major airline pilot. Table 14 in the appendix illustrates the yearly summary of average total airline compensation over the entire lifespan of the veteran.

[6] Airline compensation data. Not all airlines pay in the exact same hourly scale so this data was converted into a comparable rate.

[7] American Airlines was not included as they are in the process of ratifying a new pilot pay contract.

[8] Captain upgrade times were calculated from the average hiring date of the most junior captain with the airline.

[9] Each airline has a different retirement program. 12% was a logical average based a reported range from 8–16% of DCP and/or 401K matching.

Table 9. 2015 calculated average airline first year pay (after "Airline Profiles," n.d).[10]

2015 Airline Pilot Yearly Pay Breakdown	
Hourly Pay	49,047
Retirement Contribution	5,886
Union Dues	(0)
TOTAL	**$54,933**

Pay for the airline pilot is not likely to increase with inflation every year like the military officer's. Pay raises for airline pilots are usually negotiated by the unions in contracts that run for a given number of years with set increases. Sometimes these include yearly incremental adjustments, and sometimes they do not. These increases are adjusted for inflation in a yearly manner to smooth cash flows for comparison with their military counterpart. Longevity pay was added to the average retirement contribution and then 1% of longevity pay was then subtracted, as union dues would be required.

The two scenarios offered a value of estimated cash flows each year from 2015 to 2065, when each member reaches the age of 82. Table 15 in the appendix provides the visual comparison. In Year 2025, the military retiree starts receiving military retirement pay based 50% of base pay on the high-3 salary years (years 17, 18, and 19) and also receives the calculated first year average airline pilot pay, inflation adjusted. This coincides with when the veteran will promote to captain, and sees a 51% pay raise. Over the next 10 years, the retiree slowly catches the veteran in total compensation, but it is not until they make captain (year 2035) does their salary once again surpass the veteran. The military retiree will continue to receive approximately 15% more in pay (about $48,000 in today's dollars) every year until year 2048, when our two examples would reach the age of 65, and experience mandatory retirement from the airline industry. Only the retiree will continue to receive compensation past 2048, as the military retirement continues to

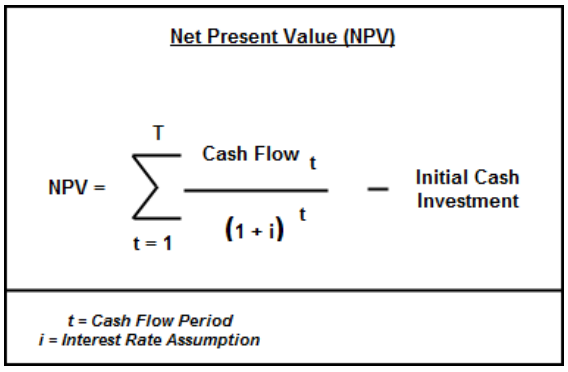
[10] Calculated rates based on average hourly pay rates and retirement contribution of major. No union dues for first year pay, 1% thereafter.

pay until death in year 2066. Table 10 illustrates a snapshot comparison of yearly compensation at years with significant changes.

Table 10. Summary of yearly compensation at milestone years, including inflation

Year of comparison	Retiree ($)	Veteran ($)
1	142,705	54,933
6	138,392[11]	144,513
10	165,056	169,261[12]
11	118,918[13]	256,561
21	348,947[14]	303,171
33	414,998	355,143
34[15]	83,393	0

The cash flows that are obtained are then discounted to a net presented value in today's dollars to gain an actual fundamental understanding of the financial value of choosing one path over the other. The process of discounting is the way in which we value money with expected receipt in the future, today. The formula represented looks as follows:



[11] Bonus payments of $25,000 have stopped.

[12] First year captain pay

[13] Military retirement and first year airline pay

[14] First year captain pay

[15] Years 34–51 will only include military retirement pay

The idea is someone would rather have $1.00 given to them today, than $1.00 given to them in the future, even if there was no inflation. Table 11 illustrates the total value of cash flows that will be paid out over a lifetime of income.

Table 11. Total earnings with inflation.

Retiree ($)	Veteran ($)
$10,337,877	$8,401,786

The inflation adjusted cash flows are then discounted at a rate of 5% to give a net present value (NPV). NPV gives an estimated value of future cash flows. By comparing the two values we can recognize the difference between them in today's valuations. The rationale for the 5% discount rate is based on the long term rates of treasury bills, which is generally assumed to be a risk free rate. As risk is increased with the investment, or probability of cash flows decrease, then the discount rate would increase and give a lower NPV. An argument could be made for using a higher discount rate for the future earnings of airline pilots, as they are much more susceptible to deviations based on economic conditions of the airline industry and the United States as a whole. TMC both while on active duty, and in retirement, could be considered very close to the risk free rate as it is almost guaranteed. Discounting the airline future cash flows at a higher rate would only diminish their NPV and there is no way to accurately calculate correctly how much more risk is involved in those cash flows. For simplification and comparison the 5% discount rate is used for both. Table 12 illustrates the values of Table 11, or total earnings, once discounted to NPV.

Table 12. Total NPV.

Retiree ($)	Veteran ($)
$3,761,519	$3,465,688

Retirement contributions made by the airlines to the employee were recognized the same as pay. Money contributed to a retirement fund should grow at an historical rate of near 8%. The rational for including retirement contributions in regular cash flows is the lack of comparison to the military retiree. The retiree receives no direct military retirement benefits until after reaching the 20 year mark, and then those benefits are paid out in the same manner as income. A military member while still on active duty could also contribute the same percentage into a retirement. What percentage someone chooses to invest in their retirement fund, or is given directly to their fund, is really arbitrary. All the cash flow incomes in this scenario are treated equally and there is no estimates made of what the member would do with them, whether spend the income or invest it.

Table 15 in the appendix illustrates the yearly summary comparison between the two scenarios, retiree and veteran. These calculations favor the retiree to the amount of over $300,000 in today's dollars, or 9% of career NPV. Calculations for the military portion of payments are likely to be very realistic. The airline pilot compensation cash flow are much more likely to vary given the disparity between the lower paying and higher paying major airlines, economic conditions, and timing for seniority and the captain upgrade. Table 15 also reflects an individual comparison made using Southwest Airlines, to see how one of the highest paying airlines would compare in valuations to the average airline compensation. Southwest is one of the only airlines to never have declared bankruptcy and thought of to have very competitive compensation packages over the last 20 years. When compared to Southwest, the advantage of the military retiree decreases to 3%, or just over $100,000 NPV. This assumption includes the retiree still working for the average airline pay, while the veteran got a job with a premium paying major airline. This illustrates the point that the retiree still holds the advantage even if the airline hiring was not as robust when they reach military retirement. If the scenario was swapped and the retiree was hired by the premium pay airline, and the veteran with the average airline, the valuation of the military retiree would only increase over the veteran.

V. RESULTS AND COMPARISON

Several key components could have significant impact on the financial calculations. The assumptions include that the two scenarios can become hired immediately upon leaving the military, whether separation or retirement. Any delays in hiring due to the economic environment of the airline industry or currency of the applicant could have drastic effects on NPV. Another, big assumption is the promotion to Captain. Airline captains make on average 40–50% more than first officers. Significant deviations from the average of 10 years could prove to have long lasting effects. The largest assumption may include that the airline does not experience financial turbulence over the course of a potential 33-year career for the veteran. If history is any indication, then it is likely that furloughs, position downgrades, mergers, and a reduction in retirement benefits are a very real possibility. While the military is not exempt from financial cutbacks, they are statistically unlikely and take "an act of Congress." Job security, promotions, pay, and benefits are much more stable in the military when compared to the airline industry; however the airline pilot has potential for greater returns that accompanies greater risk.

One of the major contributing factors to total income earned will be age. In this study, the age assumption begins at 32 years old with starting a career in the airlines or finishing a career in the military. Deviations from this age will have drastic effects in lifetime earnings mainly because it limits the number of years that a member can earn captain pay with the airlines. A person that is well above or below the assumption of age 32 will likely see a significant change it total earnings. Life expectancy age changes will also have an impact on total compensation, as the military retiree will continue to receive pay after reaching 65 years old, and the veteran loses their source of income. If the retiree lived to be 90 years old, then they would have forfeited 25 years of military income, had they chose to leave the service at ADSO.

Previously, when the mandatory retirement age for a commercial airline pilot was 60, it would have been more advantageous to start a career with the airlines as soon as you can. However, with the age limit now of 65, military retirees now have an additional

five years of captain pay, which combined with their military retirement, give them significantly more earnings than the veteran for 13 years. The maximum salary cap is obtained at the 12-year mark for most airlines, aircraft model dependent. Relative seniority would limit which captain pay scale the member would be on for airlines with separate pay scales based on model of aircraft. Since the salary has become capped for the veteran with the airline they will only see minor increases in pay for the remainder of their career. After the retiree reaches airline captain and the 12-year tenure with the airlines, their hourly pay is now exactly the same as the veteran, despite the 10 years less seniority. With the additional military retirement that the retiree will receive during this period, total compensation favors the retiree after that airline pay cap is reached.

The largest factor that could skew the data in favor of the veteran would be the time to upgrade to captain with a premium paying airline. If the veteran was leaving the service in 2015 and the hiring rates of the airlines continue to climb, then it would be possible for the veteran to upgrade to captain much sooner than 10 years. There is no way to predict how airline hiring might be in 2025 when the retiree is looking for an airline job, and if upgrade times will still be similar as they are today. As mentioned previously, timing of hiring, and thus seniority, could have large implication in favor of either situation.

VI. CONCLUSION

This is only a financial comparison and does not account for things that make up quality of life such job satisfaction, choice of residence, job stability, non-tangible benefits, and other perceived values. However, given financial compensation is a significant determining factor in all of the items listed previously, it makes sense to at least consider the financial advantages that a military retirement can have over the individual who separates after reaching half-way to military retirement, and lifetime of compensation.

While neither scenario gives guaranteed financial stability, military compensation is much more stable than an airline job and may be the best alternative for those that are risk adverse. The airline industry is subject to large economic swings that could destroy career earnings with a bankruptcy, furlough, or merger, all of which are very real possibilities.

The military retiree path also pays out more money during the first eight years of our scenario, with the amount being over $240,000 combined in the first four years. In addition, the veteran that choses the airline job will likely see a 62% pay cut in the first year of airline pay, while the retiree will only experience a 28% the first year they are hired with the airline. While the veteran could augment some of the pay disparity with overtime work or premium pay, it is still a significant reduction in earnings when compared to the retiree. For those who continue to enjoy their military service and are making a financial decision, staying until retirement eligible is the prudent choice. Not until pilots truly understand the real value of a TMC will they realize separating at ADSO is not most advantageous financial decision.

A. RECOMMENDATION

Given the current financial compensation charts, and the assumptions that are required, it is cost beneficial to remain in the military service until retirement before pursuing the second career with the airline industry. TMC with retirement offers greater security of compensation over a lifetime and the value would only increase if the member

lived well past the normal life expectancy age. Given this information, it would be beneficial for the military to spend resources educating military pilots in the true financial benefits that come with remaining in the service until retirement. Most would agree the airline pilot lifestyle offers significant advantages in lifestyle, flexibility, and some freedom of choice that is not available to a military member. With the expected increase in airline hiring and pay raises, the military will find it even more difficult to maintain desired retention rates. Educating pilots the benefits of military retirement is only a part of the solution. Increasing bonus amounts and adjustments to the outdated flight pay scale would also help the cause.

Pilots who are tired of the military lifestyle are not only making financial analysis, but also personal ones. These members are likely to separate even with a significant increase in TMC or airline pay decrease. Despite the financial advantage the military retiree has it is likely not enough to dissuade pilots from choosing the airlines sooner rather than later. To combat attrition, the pay of a military pilot must be increased at the time of ADSO, and within the following few years. Military pilots have a significantly more demanding lifestyle than their civilian counterparts, and the pay scales should reflect that during service, not just accounted for in retirement. The past decade has been a very favorable environment for military retention, but the services cannot simply rest on their laurels. If projected airline hiring rates are to be believed then the military must take a hard look at pilot pay and be proactive in adjusting pilot pay to help maintain desired pilot manning levels and operational capability.

B. ALTERNATIVE

A financial analysis was performed to see if there is any financial advantage for a member that has reached retirement eligibility to continue serving past the 20-year point. Currently, the military retirement increases at a rate of 2.5% each year after reaching 20 years. Thus, at 30 years of service you would receive 75% of the base pay average, well above the 50%. In addition, promotion to O-6, or even O-7, would result in significant increases in pay, not only during the year of service, but in retirement. The results of an O-6 retiring at 30 years of service and staring an airline career increases NPV by over

$200,000 (3%) compared to the retired O-5. The risk that would come along with these promotions is the likelihood of having a flying billet and maintaining currency when applying for the airlines. Senior officers have significantly less flying opportunities available in the military than junior officers. Thus, while the retirement pay is increasing, years spent receiving airline captain pay are decreasing, and the likelihood of having flying currency and being able to transfer straight to a major airline decreases. In addition, most of this value is experienced post airline retirement, when only military retirement is the pay source. If the discounted rate is increased this value comes down significantly.

C. FUTURE STUDY

One of the possibilities that are beyond the scope of this comparison would be to include a third option in the scenario, someone who still separates from the active military upon completion of ADSO, but while getting hired by the airlines, obtains a military Reserve job. This could be in a flying billet or a general officer fill. While likely requiring more time working for two employers, many of the pilots who separate from active duty continue to serve in a reserve capacity. The motivating factor is being eligible for Reserve retirement after completion of 20 years of service, of which they are half way there. Currently, Reserve retirement pay does not begin until reaching the age of 60, and the amount is based upon the level of participation or military work performed over a career. A pilot who reaches Reserve retirement eligibility will have accumulated a relative high participation factor as they had 10 years of active duty time. Even if they did the minimum Reserve participation for the remaining 10 years, they would likely see over $2,400 dollars a month today's dollars, starting at age 60 Calculate retired pay calculation ("Calculate Retired Pay Calculation," n.d.).[16] Reserve pay rates are significant for the level of work performed and many enjoy continuing to serve in the armed forces, even if it is in a reduced capacity. Some members are able to augment the reduction in pay that they experience in the first few years of the airline industry with military pay, while still

[16]Estimating retirement as an O-5 with 20 years of service using 4,150 points (10 years of 365 points, and 10 years of the minimum 50 points each year).

earning seniority at the airline. USERRA laws allow Reserve military duties to take priority over airline job requirements, for the detriment or benefit of the member. While Reserve participation levels can vary greatly, a comprehensive study might be obtainable to see if there is a third option starting after year 10 that has greater financial advantages then the two scenarios compared here.

APPENDIX

Table 13. Retiree total compensation yearly breakdown.

Retiree - Military Pay Until Retirement										
Age	32	33	34	35	36	37	38	39	40	41
Years of Service	10	11	12	13	14	15	16	17	18	19
Base Pay	$ 79,909	$ 81,507	$ 87,243	$ 88,920	$ 93,584	$ 95,317	$ 108,243	$ 110,176	$ 115,274	$ 117,262
Flight Pay	$ 7,800	$ 7,800	$ 7,800	$ 7,800	$ 10,080	$ 10,080	$ 10,080	$ 10,080	$ 10,080	$ 10,080
BAS	$ 3,041	$ 3,101	$ 3,162	$ 3,223	$ 3,284	$ 3,345	$ 3,405	$ 3,466	$ 3,527	$ 3,588
BAH	$ 23,042	$ 23,503	$ 23,964	$ 24,425	$ 24,886	$ 25,347	$ 27,722	$ 28,217	$ 28,712	$ 29,207
Tax Savings (15%)	$ 3,912	$ 3,991	$ 4,069	$ 4,147	$ 4,225	$ 4,304	$ 4,669	$ 4,752	$ 4,836	$ 4,919
Bonus	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000					
Total	$ 142,705	$ 144,903	$ 151,238	$ 153,516	$ 161,059	$ 138,392	$ 154,120	$ 156,692	$ 162,429	$ 165,056

Retiree - First 10 years with Airline										
Age	42	43	44	45	46	47	48	49	50	51
Mil Retirement Pay	$ 57,119	$ 58,261	$ 59,403	$ 60,546	$ 61,688	$ 62,831	$ 63,973	$ 65,115	$ 66,258	$ 67,400
Longevity Pay	$ 58,857	$ 116,645	$ 134,268	$ 146,343	$ 158,512	$ 169,250	$ 179,806	$ 189,752	$ 199,397	$ 210,433
Retirement Benefit	$ 2,943	$ 5,832	$ 6,713	$ 7,317	$ 7,926	$ 8,462	$ 8,990	$ 9,488	$ 9,970	$ 10,522
Union Dues	$ -	$ (1,166)	$ (1,343)	$ (1,463)	$ (1,585)	$ (1,692)	$ (1,798)	$ (1,898)	$ (1,994)	$ (2,104)
Total	$ 118,918	$ 179,572	$ 199,043	$ 212,742	$ 226,540	$ 238,850	$ 250,971	$ 262,457	$ 273,631	$ 286,250

Retiree - Second 10 years with Airline										
Age	52	53	54	55	56	57	58	59	60	61
Mil Retirement Pay	68,542	69,685	70,827	71,970	73,112	74,254	75,397	76,539	77,681	78,824
Longevity Pay	269,659	277,029	280,931	284,833	288,735	292,636	296,538	300,440	304,342	308,244
Retirement Benefit	13,483	13,851	14,047	14,242	14,437	14,632	14,827	15,022	15,217	15,412
Union Dues	(2,697)	(2,770)	(2,809)	(2,848)	(2,887)	(2,926)	(2,965)	(3,004)	(3,043)	(3,082)
Total	348,987	357,795	362,995	368,196	373,396	378,596	383,796	388,997	394,197	399,397

Retiree - Last 3 years with airline										
Age	62	63	64	65	66	67	68	69	70	71
Mil Retirement Pay	79,966	81,109	82,251	83,393	84,536	85,678	86,820	87,963	89,105	90,248
Longevity Pay	312,145	316,047	319,949	-	-	-	-	-	-	-
Retirement Benefit	15,607	15,802	15,997	-	-	-	-	-	-	-
Union Dues	(3,121)	(3,160)	(3,199)	-	-	-	-	-	-	-
Total	404,597	409,798	414,998	83,393	84,536	85,678	86,820	87,963	89,105	90,248

Retiree - post airline compensation										
Age	72	73	74	75	76	77	78	79	80	81
Mil Retirement Pay	91,390	92,532	93,675	94,817	95,959	97,102	98,244	99,387	100,529	101,671
Longevity Pay	-	-	-	-	-	-	-	-	-	-
Retirement Benefit	-	-	-	-	-	-	-	-	-	-
Union Dues	-	-	-	-	-	-	-	-	-	-
Total	91,390	92,532	93,675	94,817	95,959	97,102	98,244	99,387	100,529	101,671

Table 14. Veteran total compensation yearly breakdown.

Veteran - First 10 years with Airline										
Age	32	33	34	35	36	37	38	39	40	41
Longevity Pay	$ 49,047	$ 95,610	$ 108,281	$ 116,145	$ 123,837	$ 130,192	$ 136,216	$ 141,606	$ 146,616	$ 152,487
Retirement Benefit	$ 5,886	$ 11,473	$ 12,994	$ 13,937	$ 14,860	$ 15,623	$ 16,346	$ 16,993	$ 17,594	$ 18,298
Union Dues	$ -	$ (956)	$ (1,083)	$ (1,161)	$ (1,238)	$ (1,302)	$ (1,362)	$ (1,416)	$ (1,466)	$ (1,525)
Total	$ 54,933	$ 106,128	$ 120,192	$ 128,921	$ 137,459	$ 144,513	$ 151,200	$ 157,183	$ 162,743	$ 169,261

Veteran - Second 10 years with Airline										
Age	42	43	44	45	46	47	48	49	50	51
Longevity Pay	$ 231,136	$ 238,011	$ 241,913	$ 245,815	$ 249,716	$ 253,618	$ 257,520	$ 261,422	$ 265,324	$ 269,225
Retirement Benefit	$ 27,736	$ 28,561	$ 29,030	$ 29,498	$ 29,966	$ 30,434	$ 30,902	$ 31,371	$ 31,839	$ 32,307
Union Dues	$ (2,311)	$ (2,380)	$ (2,419)	$ (2,458)	$ (2,497)	$ (2,536)	$ (2,575)	$ (2,614)	$ (2,653)	$ (2,692)
Total	$ 256,561	$ 264,192	$ 268,523	$ 272,854	$ 277,185	$ 281,516	$ 285,847	$ 290,178	$ 294,509	$ 298,840

Veteran - Third 10 years with Airline										
Age	52	53	54	55	56	57	58	59	60	61
Longevity Pay	273,127	277,029	280,931	284,833	288,735	292,636	296,538	300,440	304,342	308,244
Retirement Benefit	32,775	33,243	33,712	34,180	34,648	35,116	35,585	36,053	36,521	36,989
Union Dues	(2,731)	(2,770)	(2,809)	(2,848)	(2,887)	(2,926)	(2,965)	(3,004)	(3,043)	(3,082)
Total	303,171	307,502	311,833	316,164	320,495	324,826	329,157	333,488	337,819	342,150

Veteran - Last 3 years with airline										
Age	62	63	64	65	66	67	68	69	70	71
Longevity Pay	312,145	316,047	319,949	-	-	-	-	-	-	-
Retirement Benefit	37,457	37,926	38,394	-	-	-	-	-	-	-
Union Dues	(3,121)	(3,160)	(3,199)	-	-	-	-	-	-	-
Total	346,481	350,812	355,143							

Veteran - post airline compensation										
Age	72	73	74	75	76	77	78	79	80	81
Longevity Pay	-	-	-	-	-	-	-	-	-	-
Retirement Benefit	-	-	-	-	-	-	-	-	-	-
Union Dues	-	-	-	-	-	-	-	-	-	-
Total										

Table 15. Total Compensation yearly comparison.

			Total Yearly Compensation	
Year	Age	Retiree	Veteran (Airline Average)	Veteran (Southwest Airlines)
2015	32	$ 142,705	$ 54,933	$ 59,700
2016	33	$ 144,903	$ 106,128	$ 104,576
2017	34	$ 151,238	$ 120,192	$ 117,619
2018	35	$ 153,516	$ 128,921	$ 133,325
2019	36	$ 161,059	$ 137,459	$ 148,397
2020	37	$ 138,392	$ 144,513	$ 158,121
2021	38	$ 154,120	$ 151,200	$ 164,548
2022	39	$ 156,692	$ 157,183	$ 172,306
2023	40	$ 162,429	$ 162,743	$ 176,555
2024	41	$ 165,056	$ 169,261	$ 184,587
2025	42	$ 118,918	$ 256,561	$ 271,427
2026	43	$ 179,572	$ 264,192	$ 278,530
2027	44	$ 199,043	$ 268,523	$ 283,096
2028	45	$ 212,742	$ 272,854	$ 287,662
2029	46	$ 226,540	$ 277,185	$ 292,228
2030	47	$ 238,850	$ 281,516	$ 296,794
2031	48	$ 250,971	$ 285,847	$ 301,360
2032	49	$ 262,457	$ 290,178	$ 305,927
2033	50	$ 273,631	$ 294,509	$ 310,493
2034	51	$ 286,250	$ 298,840	$ 315,059
2035	52	$ 348,987	$ 303,171	$ 319,625
2036	53	$ 357,795	$ 307,502	$ 324,191
2037	54	$ 362,995	$ 311,833	$ 328,757
2038	55	$ 368,196	$ 316,164	$ 333,323
2039	56	$ 373,396	$ 320,495	$ 337,889
2040	57	$ 378,596	$ 324,826	$ 342,455
2041	58	$ 383,796	$ 329,157	$ 347,021
2042	59	$ 388,997	$ 333,488	$ 351,587
2043	60	$ 394,197	$ 337,819	$ 356,153
2044	61	$ 399,397	$ 342,150	$ 360,719
2045	62	$ 404,597	$ 346,481	$ 365,285
2046	63	$ 409,798	$ 350,812	$ 369,851
2047	64	$ 414,998	$ 355,143	$ 374,418
2048	65	$ 83,393		
2049	66	$ 84,536		
2050	67	$ 85,678		
2051	68	$ 86,820		
2052	69	$ 87,963		
2053	70	$ 89,105		
2054	71	$ 90,248		
2055	72	$ 91,390		
2056	73	$ 92,532		
2057	74	$ 93,675		
2058	75	$ 94,817		
2059	76	$ 95,959		
2060	77	$ 97,102		
2061	78	$ 98,244		
2062	79	$ 99,387		
2063	80	$ 100,529		
2064	81	$ 101,671		
	Totals=	**$ 10,337,877**	**$ 8,401,786**	**$ 8,873,583**
	NPV=	**$3,761,519.18**	**$ 3,465,688**	**$3,661,526**

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